IN THE CLAIMS

1. (currently amended) An ultrasonic pulse transmission method comprising:

when ~~a number of packets P (≥2) is defined for conducting~~ P ultrasonic pulse transmissions are conducted in one direction to acquire a first acoustic line signal that belongs to a first frame, interleaving, between the P ultrasonic pulse transmissions conducted in the direction to acquire the first acoustic line signal, at least one ultrasonic pulse transmission for acquiring a second acoustic line signal that belongs to a second frame different from ~~that to which said first acoustic line signal belongs~~the first frame ~~between the ultrasonic pulse transmissions in said one direction~~.

2. (currently amended) The ultrasonic pulse transmission method of claim 1, further comprising: when a number of interleaves I (≥2) is defined, interleaving ultrasonic pulse transmissions for acquiring (I - 1) acoustic line signals that belong to (I - 1) frames different from the first frame to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction.

3. (original) The ultrasonic pulse transmission method of claim 1, further comprising: electronically changing the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and also electronically changing the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

4. (original) The ultrasonic pulse transmission method of claim 1, further comprising: electronically changing the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and mechanically changing the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

5. (original) The ultrasound pulse transmission method of claim 1, further comprising: conducting ultrasonic pulse transmissions simultaneously in different directions to simultaneously acquire a plurality of acoustic line signals.

6. (original) The ultrasonic pulse transmission method of claim 1, further comprising: acquiring acoustic line signals containing flow information.

7. (currently amended) An ultrasonic diagnostic apparatus comprising:

an ultrasonic probe;

a number-of-frames defining device for defining a number of frames f;

~~a number-of-packets defining device for defining a number of packets P ($\geq$2);~~

a transmitting/receiving device for driving said ultrasonic probe to conduct P ultrasonic pulse transmissions in one direction and receive echoes to acquire a first acoustic line signal that belongs to a first one of the frames, wherein P is at least equal to two; and

a transmission direction control device ~~for controlling~~configured to control the transmission direction to interleave, between the P ultrasonic pulse transmissions conducted in the direction to acquire the first acoustic line signal, at least one ultrasonic pulse transmission ~~for acquiring~~to acquire a second acoustic line signal that belongs to a ~~frame~~second one of the frames different from ~~that to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction~~the first one of the frames.

8. (currently amended) The ultrasonic diagnostic apparatus of claim 7, wherein said apparatus comprises a number-of-interleaves defining device for defining a number of interleaves I ($\geq$2), and said transmission direction control device controls the transmission direction to interleave ultrasonic pulse transmissions for acquiring (I - 1) acoustic line signals that belong to (I - 1) frames different from the ~~frame~~first one of the frames to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction.

9. (currently amended) An ultrasonic diagnostic apparatus comprising:

an ultrasonic probe;

a number-of-frames defining device for defining a number of frames f;

~~a number-of-packets-defining device for defining a number of packets P (≥2);~~

a transmitting/receiving device for driving said ultrasonic probe to conduct P ultrasonic pulse transmissions in one direction and receive echoes to acquire a first acoustic line signal, wherein P is at least equal to two;

a transmission direction control device for controlling the transmission direction in an intra-frame mode in which the transmission direction is controlled to interleave at least one ultrasonic pulse transmission for acquiring a second acoustic line signal that belongs to the frame to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction, or in an inter-frame mode in which the transmission direction is controlled to interleave at least one ultrasonic pulse transmission for acquiring a third acoustic line signal that belongs to a frame different from that to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction; and

an interleave mode selecting device for an operator to select between said intra-frame mode and inter-frame mode.

10. (previously presented) The ultrasonic diagnostic apparatus of claim 9, wherein said apparatus comprises a number-of-interleaves defining device for defining a number of interleaves I (≥2), and said transmission direction control device controls the transmission direction to interleave ultrasonic pulse transmissions for acquiring (I - 1) other acoustic line signals that belong to the frame to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction, or to interleave ultrasonic pulse transmissions for acquiring (I - 1) acoustic line signals that belong to (I - 1) frames different from the frame to which said first acoustic line signal belongs between the ultrasonic pulse transmissions in said one direction.

11. (previously presented) The ultrasonic diagnostic apparatus of claim 7, wherein said ultrasonic probe is a two-dimensional array ultrasonic probe, and said transmission direction control device electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and

also electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

12. (previously presented) The ultrasonic diagnostic apparatus of claim 7, wherein said apparatus comprises a mechanism that can mechanically change orientation of said ultrasonic probe in a direction orthogonal to a frame, and said transmission direction control device electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and mechanically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

13. (previously presented) The ultrasonic diagnostic apparatus of claim 7, wherein said transmitting/receiving device conducts ultrasonic pulse transmissions simultaneously in different directions to simultaneously acquire a plurality of acoustic line signals.

14. (previously presented) The ultrasonic diagnostic apparatus of claim 7, wherein said transmitting/receiving device acquires acoustic line signals containing flow information.

15. (previously presented) The ultrasonic diagnostic apparatus of claim 9, wherein said ultrasonic probe is a two-dimensional array ultrasonic probe, and said transmission direction control device electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and also electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

16. (previously presented) The ultrasonic diagnostic apparatus of claim 9, wherein said apparatus comprises a mechanism that can mechanically change orientation of said ultrasonic probe in a direction orthogonal to a frame, and said transmission direction control device electronically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to the same frame, and mechanically changes the ultrasonic pulse transmission direction among acoustic line signals that belong to different frames.

17. (previously presented) The ultrasonic diagnostic apparatus of claim 9, wherein said transmitting/receiving device conducts ultrasonic pulse transmissions simultaneously in different directions to simultaneously acquire a plurality of acoustic line signals.

18. (previously presented) The ultrasonic diagnostic apparatus of claim 9, wherein said transmitting/receiving device acquires acoustic line signals containing flow information.